this condition. The author's experience, as shown by cases occurring in his own practice, convinces him of the disadvantages of the use of the catheter under these circumstances. Suddenly produced changes of intra vesical pressure bring about a disastrous issue through rapid urinary resorption. He advises that catheterization be employed only when an acute retention supervenes; otherwise the interference should be restricted to the introduction, from time to time, into the bladder, of a full-sized metallic sound. This procedure proved itself useful in retention depending upon different causes, such as prostatic hypertrophy, paraplegia, etc. Patients learn, in the course of time, to urinate voluntarily, the urine approaches its normal condition, and the irritability of the viscus is markedly lessened. Only after a long persistence of the treatment by the sound, and its further use being deemed necessary, should the catheter come into play; and even then its full employment should not be reached until after many sittings, at the same time partially replacing the evacuated urine by means of injected fluid. Although in this class of cases there will occasionally occur those who will tolerate the rapid evacuation of the bladder, yet there is no means of differentiating them beforehand.—*St. Petersburger Med. Wochenschrift.*—*Centbl. f. Chir.*, 1890, No. 6.

GEORGE R. FOWLER (Brooklyn).

BONES, JOINTS, ORTHOPÆDIC.

I. Two Cases of Bilateral Ankylosis of the Hip-Joint.

By E. S. PERMANN.

1. A boy, æt. 12 years, was received August 3, 1888, in the hospital. Two years before he had passed through an osteomyelitis which left behind it a very faulty position of both hip joints. The left thigh was flexed and adducted; the greater trochanter surrounded by cicatrices was about 3½-ins. above the line of Nélaton. The left hip-joint, as well as the knee, which stood at an angle of 45°, were immoveable. The ankle joint was somewhat moveable. The right thigh, flexed, abducted and rotated outward, stood at an angle, open outward, of 70° to the buttocks. The hip immovable, the knee unankylotic, cannot be extended beyond a right angle. The ankle joint moveable. There

was a fistula in the upper end of right tibia, atrophy of the leg and slight decubitus. Albuminuria. August 7. Osteotomy was performed under the left trochanter (a wedge-shaped piece being removed), and at the left knee section of the adductors. The right knee was gradually extended from 90° to 140°. December 29, resection was performed by the chisel of the bony ankylotic right hip. Recovery took place with a fistula. The equinus position of the foot was improved by means of elastic pressure. June, 1889, the patient could walk around quite well with crutches in the room. The right hip-joint flexed at 45°. A further passive movement of 45° was possible. The active flexion was less. The abduction and adduction were quite good. At his discharge on July 23, his general condition was the same as when he entered. The albuminuria persisted.

II. A boy, æt. 15 years, received October 12, 1888, and who had passed through a bilateral coxitis August, 1886, in consequence of acute osteomyelitis. The right thigh was greatly adduced and rotated inward, the left abducted and rotated outward. The movement of the left hip was completely impossible; in the right, very slight movement. The right greater trochanter projected 1¼-ins. above Nélaton's line, cicatrices on the right thigh and leg. The right knee was nearly entirely moveable. the left only to be extended up to 130° and flexed up to 90°. The legs on the whole atrophic. The patient could only move about with crutches and by throwing both the legs forward at the same time. No internal organic disease. October 18, subtrochanteric osteotomy was performed on the right limb. January 2, 1889, resection of the left hip was performed by the chisel, whereby a partially bony union was found. The cotyloid cavity was chiseled out; and the stump of the femur rounded off. Extension. February 2, the wound was completely healed, yet no great mobility was obtained, as in the meantime the right hip had again become strongly adducted, March 28, resection of the right hip was done with the chisel, with a complete removal of the head, neck and great trochanter. April 27, the wound had healed. As the patient was discharged toward the end of June, he could walk a longer time with two canes. Yet he, in his walk, resembled a patient with bilateral luxation of the hip. The right thigh could be flexed from the limit of extension, 60°, and abducted 50°. There was very slight immobility of the left hip; otherwise it was in a good position.—*Hygeia* (Stockholm), August, 1889.

F. H. PRITCHARD (Boston).

II. Treatment of Long-Standing Dislocation of Both Shoulders. SIR JOSEPH LISTER reports two cases of dislocation of both shoulders remaining unreduced at the end of eight weeks and seven months respectively. Having ruptured the axillary artery in a case of the same sort, he decided to cut down upon the bone before trying to reduce it. He made an incision from the coracoid process downward and somewhat outward, in the interval between the deltoid and the pectoralis major, and divided the tendon of the subscapularis at its insertion, and then with a periosteum elevator separated the soft parts from the head of the bone and the inner part of its neck. Pulleys were then applied, and as this traction showed some fibrous bands that were put on the stretch, these were divided. As the head of the bone would not return to its position it was protruded through the wound, as for resection, and the external rotators cut through at their insertion. Then after several attempts with pulley traction, the bone was returned to the glenoid cavity. The wound healed kindly. A week later the other shoulder was operated on in a like manner, except that the head of the bone was immediately protruded and the rotators divided. In seven weeks after the operation the patient was able to dress himself alone, and from that time continually gained power in the arms.

In the secend cese the same operation was done on the left arm seven months after the injury. The right arm was not operated on until six months later. In this case, instead of detaching the soft parts from the bone, the head of the bone was removed with the chisel, when the bone went rapidly into place. After this procedure, the return of function did not seem to be as rapid and complete as where the bone was left intact. Both cases after operation were able to earn their living by hard manual labor.

As a result of this experience, Lister advises that when the surgeon feels in doubt as to whether it is prudent to make attempts at reduction, or when such attempts do not succeed, he should, in the first place, cut down upon the bone by the usual incision from the coracoid process downward and a little outward, and then with a curved periosteum-detacher freely separate the soft parts from the inner side of the upper end of the humerus. If this fails, he may proceed to turn out the head of the bone, detaching the insertions of the rotator muscles. Even if this procedure fail, the removal of the head of the bone is open to us. —*Brit. Med. Journ.*, Jan. 4, 1890.

H. B. DELATOUR (Brooklyn).

III. Inflammation of the Bursa Under the Ligamentum Patellæ. By Dr. TERRILLON (Paris). The doctor has had the opportunity of seeing several examples of this form of peri-articular trouble, which consists in an alteration of the cellular tissue of the bursa situated beneath the ligamentum patellæ, and it is important to recognize and diagnosticate this form of trouble, and differentiate it from the various affections of the knee joint. The inflammation of this bursa was first described by Gosselin in 1873 (*Archives Generale de Medecine*), then later on by Trendelenburg and Spilmann.

The chief characteristic of this trouble is a deformity of the anterior region of the knee, on each side of the patellar ligament; instead of there being a depression when the knee is semi-flexed, there is more or less tumefaction, which in marked cases can be seen when the leg is extended. This little mass on each side of the patellar ligament is tense, elastic, but does not disappear on pressure, no fluctuation is obtainable; the thickening seems due to œdema. At the same time there is a local rise in the temperature of the affected part which seems to be strictly limited.

There is pain and difficulty in walking, specially during flexion of the knee and this is sometimes impossible. Standing for any period of time becomes painful.

Sometimes there is superadded a contracture of the flexor muscles. A remarkable and noteworthy accompanying lesion is the atrophy of the extensor muscles of the thigh, and in two of Dr. Trendelenburg's cases this was present to a very marked degree.

This disease, according to Gosselin, Duplay and Trendelenburg, is only seen during youth. that is between the ages of 14 and 23 years, and is more common in girls than in boys.

In many cases it appears spontaneously, though frequently it seems to follow a more or less severe traumatism, such as frequent and prolonged kneeling.

In all the cases in which Dr. Trendelenburg observed the trouble,the patients had a rheumatic diathesis.

One of the writer's cases had a distinct traumatic history and followed a hæmatoma of this bursa, due to a fall against a projecting edge of a stone.

The progress of this affection is slow and chronic, and resists most all forms of treatment. In three of the doctor's cases the duration was over three years, during which time there were periods of severe exacerbations.

The diagnosis is only possible after a very careful examination of the knee-joint, and the disease is often mistaken for an arthritis, but by paying attention to the above described symptoms the differential diagnosis is easy.

The prognosis is pretty good; though the disease is of long duration it does not involve the joint, and only occasions pain, and does not prevent the patient from going about.

The treatment consists in the employment of methodical compression, counter-irritation, massage and electricity.—*Bul. de la Soc. de Chir. de Paris*, Nos. 9 and 10, 1889.

IV. The Treatment of Genu Varum and Valgum. By Prof. JULIUS WOLFF (Berlin). In young individuals slight cases of genu varum or valgum, are easily cured by orthopædic apparatus or by plastic dressings.

The treatment of the graver cases is to be divided in two groups; in one a slow and gradual straightening of the deformity is attempted, in the other the result is obtained immediately by operative procedure.

To the first group belongs the treatment by means of portative orthopædic apparatus, the plaster dressing, renewed every three or four weeks, and any of the various splints which have been devised up to the present time, also the method of Heine which confines the patient to bed and uses pressure and counter-pressure combined with extension.

To the second group belongs the solutions of continuity of the bone obtained either through the bloody and non-bloody operations, that is the linear, or the cunieform osteotomy, tenotomy of the biceps muscle, division of the external lateral ligaments, or the sudden redressement obtained by manual force or by osteoclasis, in order to produce a traumatic epiphyseal separation and a tearing of the external lateral ligaments from the lower end of the femur.

The "Redressement Brusque" is dangerous for it is impossible to regulate the amount of tearing which may be done, and irreparable damage may thus be brought on the patient.

Osteotomy has no other drawback except that it is a bloody operation on the bone, a compound fracture in fact, and this drawback should not exist any more since the introduction of antisepsis, if there was not a bloodless method which gave equally good results.

This bloodless method is the conversion of the slow method of applying straightening plaster dressings into a rapid one by several important modifications.

The first modification is that instead of waiting three or four weeks between each "redressement" only two or three elapse and instead of a new dressing being applied each time, only one dressing is necessary; which by the excision of a wedge-shaped piece on the inner side, (in genu varum outer side, in genu valgum inner), and a simultaneous linear division in the opposite side is always rendered movable at the region of the knee joint.

The great objection to this method was the long period during which the knee joint had to be immobilized and the resulting discomfort to the patient.

To overcome this objection the author employs the following device:

When the perfect straightening has been obtained after repeated removals of the wedge-shaped pieces of dressing. a hinged iron splint, permitting a backward and forward motion, is applied on each side of the knee joint and fastened in position, and from two to four finger breadths of the plaster bandage is removed circularly from around the joint. Thus while the leg remains in its straightened position the patient can flex and extend his leg.

Since January, 1885, Dr. Wolff has treated 89 patients by this method, and expresses the following opinion.

All cases of knock-knee, under twenty years of age, should be treated by the above method, and also older persons in whom the soft parts around the knee joint are sufficiently yielding. In those cases where the deformity is specially rigid and unyielding osteotomy is to be preferred.

As regards the technique of his procedure, Wolff makes the following remarks:

The first dressing is to be as light as compatible with perfect strength.

The region of the malleoli, the patella, the internal condyle in genu valgum, and the external in genu varum, must be specially well padded. The bandage should start at the malleoli and reach as high as the great trochanter.

The application of the bandage is generally made under narcosis, and is made as rapidly as possible, and while the limb is in the false position, as the plaster begins to harden the leg is straightened by an assistant, and a gradually increasing force is applied until the deformity is straightened as much as possible without violence being used.

As soon as the patient is perfectly free from the pain of the "redressement," which usually happens in two or three days, if necessary an increase in the redressement can be made by means of the excision of wedge-shaped pieces from the bandage on the inner side of the knee joint, and a linear division of the opposite side; the dressing thus being made movable at the joint more straightening force together with a fresh bandage at this point is applied. This procedure is to be repeated as often as necessary. Soon as a perfect straightening has been obtained, the iron-hinged splint is applied on each side of the knee joint and fixed in place by plaster bandages, and a circular piece cut out around the knee.—*Deutsche Med. Woch.*, No. 50, 1889.

F. C. HUSSON (New York).